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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Sang-Ho Choi

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EXAMINER

HOM, SHICK C

ART UNIT

PAPER NUMBER

2616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/026,826	Applicant(s) CHOI ET AL.	
	Examiner Shick C. Horn	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's filed amendment to the claims on 12/21/06 is not proper since no claims have been amended since all claims are original and as previously presented in the application.

Response to Arguments

2. Applicant's arguments filed 12/21/06 have been fully considered but they are not persuasive. While examiner agrees that Barna et al. does not specifically recite a channel link between the S-BSC and T-BSC as applicant argued in page 5 line 21 to page 6 line 17 of the remarks, Madour in Fig. 2 shows the link 202 between the Source BSC 22 and the MSC 26 whereby the MSC 26 is connected to the Target BSC 24 via link 204 clearly anticipate the channel link passing between the Target BSC and

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Source BSC. Further, in response to applicant's argument in page 6 lines 18-29 of the remark that the word "channel" is being given too broad an interpretation because the link of Madour do not transfer network traffic or data is not persuasive because it is noted that the features upon which applicant relies (i.e., a channel link which transfer network traffic or data) are not recited in the rejected claim. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Further Malkamaki et al. Fig. 7 shows the MSC have a channel link between BTS1 and BTS2.

In response to applicant's arguments in page 6 line 30 to page 7 line 18 against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1 and 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barna (2002/0046277) in view of Madour (2002/0021681).

Regarding claim 1:

Barna discloses the method for performing a hard handoff (paragraph 0019 recite inter-PDSN handoff of a mobile station), comprising:

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(a) setting up a channel link passing through a target base station controller (T-BSC) associated with a target-PDSN (T-PDSN), a source base station controller (S-BSC) associated with a source-PDSN (S-PDSN), a source packet control function (S-PCF) and the S-PDSN (Fig. 2 shows the target BSC 64 which corresponds to the T-BSC, PDSN2 66 which corresponds to the T-PDSN, the source BSC 61 which corresponds to the S-BSC, the source PCF 62 which corresponds to the S-PCF, and PDSN1 63 which corresponds to the S-PDSN and the link passing through them for performing handoff between the S-BSC and the T-BSC);

(b) performing the hard handoff between the S-BSC, the T-BSC and a mobile station (MS) (paragraph 0039-0040 recite the inter-PDSN handoff of a mobile station from the source base station controller and the target BSC); and

(c) transmitting or receiving user packet data exchanged between the MS and the T-BSC through the established channel link to or from the S-PDSN in case the hard handoff is completed (paragraphs 0035, 39, and 0041 which recite at the completion of the handoff using the associated T-BSC and the T-PDSN);

(d) establishing a channel link between the T-BSC, a target packet control function (T-PCF) and a target-PDSN (T-PDSN) in a dormant packet session mode (Fig. 2 shows the link between the

T-BSC, T-PCF and T-PDSN and paragraph 0043 which recite the dormant packet session mode);

(e) releasing the channel link set up between the S-BSC, the S-PCF and the S-PDSN (paragraph 0043 recite releasing the S-PDSN); and

(g) performing a point-to-point (PPP) establishing process and a mobile Internet protocol (MIP) registering process between the MS and the T-PDSN (paragraph 0040 recite the MS engaged in the internet session including the registration request message to the PDSN-2 to establish the PPP connection).

For claims 1 and 3-6, Barna et al. disclose all the subject matter of the claimed invention with the exception of establishing a channel link between the S-BSC and the T-BSC in an active packet session mode as in claim 1;

wherein the step (a) includes the step of: (a1) transmitting a Handoff Required message from the S-BSC to the MSC and establishing the channel link between the S-BSC and the MSC as in claim 3;

wherein, in the step (a1), the channel link between the S-BSC and the MSC is established by including a circuit identification code (CIC) as an extender in the Handoff Required message as in claim 4;

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wherein the step (a) includes the step of: (a2)
transmitting a Handoff Request message from the MSC to the T-BSC
and establishing the channel link between the MSC and the T-BSC
as in claim 5; and

wherein, in the step (a2), the channel link between the MSC
and the T-BSC is set up by including a circuit identification
code (CIC) as an extender in the Handoff Request message as in
claim 6.

Madour from the same or similar fields of endeavor teach
that it is known to provide the mobile station center for
setting up the channel link passing through the T-BSC, S-BSC ,
S-PCF, S-PDSN (Fig. 3b shows the MSC 36, establishing a link
between the BSC-T 34 and BSC-S 32, PCF-S 33, and PDSN-S 37 as in
claim 1);

wherein the step (a) includes the step of: (a1)
transmitting a Handoff Required message from the S-BSC to the
MSC and establishing the channel link between the S-BSC and the
MSC (Fig. 2 shows the handoff required message 202 from the BSC-
S 22 to MSC 26 as in claim 3);

wherein, in the step (a1), the channel link between the
S-BSC and the MSC is established by including a circuit
identification code (CIC) as an extender in the Handoff Required
message (paragraph 0022 recite the handoff required message to

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the MSC includes information and address to help with the handoff clearly reads on the circuit identification code (CIC) as in claim 4);

wherein the step (a) includes the step of: (a2) transmitting a Handoff Request message from the MSC to the T-BSC and establishing the channel link between the MSC and the T-BSC (Fig. 2 shows the Request message 204 from the MSC 26 to the T-BSC 24 as in claim 5); and

wherein, in the step (a2), the channel link between the MSC and the T-BSC is set up by including a circuit identification code (CIC) as an extender in the Handoff Request message (see paragraph 0022 which recite the handoff required message to the MSC includes information and address to help with the handoff clearly reads on the circuit identification code (CIC) as in claim 6).

Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide the mobile station center for setting up the channel link; wherein the step (a) includes the step of: (a1) transmitting a Handoff Required message from the S-BSC to the MSC and establishing the channel link between the S-BSC and the MSC; wherein, in the step (a1), the channel link between the S-BSC and the MSC is established by including a circuit

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identification code (CIC) as an extender in the Handoff Required message; wherein the step (a) includes the step of: (a2) transmitting a Handoff Request message from the MSC to the T-BSC and establishing the channel link between the MSC and the T-BSC; and wherein, in the step (a2), the channel link between the MSC and the T-BSC is set up by including a circuit identification code (CIC) as an extender in the Handoff Request message as taught by Madour in the communications method of Barna et al.

The mobile station center; wherein the step (a) includes the step of: (a1) transmitting a Handoff Required message from the S-BSC to the MSC and establishing the channel link between the S-BSC and the MSC; wherein, in the step (a1), the channel link between the S-BSC and the MSC is established by including a circuit identification code (CIC) as an extender in the Handoff Required message; wherein the step (a) includes the step of: (a2) transmitting a Handoff Request message from the MSC to the T-BSC and establishing the channel link between the MSC and the T-BSC; and wherein, in the step (a2), the channel link between the MSC and the T-BSC is set up by including a circuit identification code (CIC) as an extender in the Handoff Request message can be implemented by connecting the MSC including the transmission of Handoff Required message and circuit identification code being as an extender in the Handoff Request

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message of Madour between the MS, source-BSC, target-BSC, and the PDSNs of Barna et al.

The motivation for using the MSC including the transmission of Handoff Required message and circuit identification code being as an extender in the Handoff Request message as taught by Madour in the communication method of Barna et al. being that it provides more efficiency for the system since the system uses a single center for handoff of the mobile station rather than having duplicate circuits for inter-PDSN handoff.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Malkamaki et al. disclose a method and apparatus providing handoff of a mobile station between base stations using parallel communication links established with different time slots. Fig. 7 shows the MSC have a channel link between BTS1 and BTS2.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C. Hom whose telephone number is 571-272-3173. The examiner can normally be reached on Mon-Fri.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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FIG. 4

